UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,197	04/06/2001	Richard D. Webb	1930.0070003	5381

26111 7590 12/03/2004	EXAMINER	
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1100 NEW YORK AVENUE, N.W.		
WASHINGTON, DC 20005	ART UNIT	PAPER NUMBER
	2122	

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/827,197	WEBB, RICHARD D.
	Examiner	**Art Unit**
	Michael J. Yigdall	2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 August 2004</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>17-27</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>17-27</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>25 August 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Applicant's amendment and reply filed on August 25, 2004 has been fully considered.

Claims 1-16 have been cancelled and claims 17-27 remain pending.

Response to Arguments

2.   Applicant's arguments with respect to claims 1-16 have been considered but are moot

because the claims have been cancelled.

3.   Applicant's arguments with respect to claims 17-27 have been fully considered but they

are not persuasive.

Applicant alleges that the XML meta data file of Wigger does not constitute "second

program code written in an extensible, object-oriented programming language for describing said

first program elements in said first program code written in said high-level language," and

similarly that the XML meta data file of Wigger does not constitute "a second corresponding

program using an extensible, object-oriented programming language to describe the high-level

source code" (Applicant's remarks, pages 8-9).

However, FIG. 3 of Wigger illustrates an example of the second program code or second

corresponding program. The meta file 300 in FIG. 3 is written in XML, which is an extensible

programming language (Wigger, column 8, lines 20-30). Furthermore, the meta file describes

the high-level code of the first program in that it describes the parameters of program elements

within the first program (Wigger, column 4, lines 22-39). The language of the meta file is

object-oriented, as illustrated by each "DefinePreProcessingMacro" object in FIG. 3. Moreover,

Wigger expressly discloses that instances of objects are defined according to the specifications

provided by the meta file (column 10, lines 7-36).

Drawings

4.   The objections to the drawings are withdrawn in view of the replacement drawing sheets

filed on August 25, 2004.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an
> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 17 and 19-25 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S.

Pat. No. 6,427,228 to Wigger (art of record, "Wigger" herein).

With respect to claim 17 (currently amended), Wigger discloses a system for describing

structure of programming languages (see the abstract, which shows a system for specifying or

describing objects of a programming language), comprising:

(a) first program code written in a high-level programming language, said first program

code having first program elements (see, for example, column 6, lines 51-57, which shows using

high-level programming languages such as Java and C++, and see, for example, FIG. 4A, which

shows an exemplary program written in one such high-level programming language);

(b) second program code written in an extensible, object-oriented programming language for describing said first program elements in said first program code written in said high-level programming language (see, for example, column 8, lines 20-30, which shows using Extensible Markup Language for a meta file, and column 4, lines 22-39, which shows that the meta file describes objects of the high-level language, and see, for example, FIG. 3, which shows an exemplary program written in the extensible, object-oriented language); and

(c) a programming tool for converting said object-oriented programming language (see, for example, column 4, lines 22-39, which shows combining or converting the meta file to produce an object-oriented source code output file).

With respect to claim 19 (original), Wigger further discloses the limitation wherein input and verification parameters are specified in said extensible and object-oriented descriptive programming language (see, for example, column 9, lines 7-18, which shows specifying parameters in the meta file that serve as input values).

With respect to claim 20 (original), Wigger further discloses the limitation wherein said programming tool is a compiler (see, for example, column 6, lines 41-47, which shows implementing the system in a compiler).

With respect to claim 21 (original), Wigger further discloses the limitation wherein said programming tool is a translator (see, for example, column 6, lines 41-47, which shows implementing the system in a compiler, which is a translator).

With respect to claim 22 (original), Wigger discloses a method for describing computer programs by retaining meta-information about program elements (see, for example, the abstract, which shows a system for specifying or describing elements of a computer program in a meta file), thereby allowing optimization and functionality on multiple hardware and software platforms (see, for example, column 6, lines 51-57, which shows using the Java language, and column 8, lines 20-30, which shows using XML; note that the Java language and XML are platform-independent and have functionality on multiple hardware and software platforms), comprising the following steps:

(a) creating a first program using a high-level programming language (see, for example, column 6, lines 51-57, which shows using high-level programming languages such as Java and C++, and see, for example, FIG. 4A, which shows an exemplary program written in one such high-level programming language);

(b) creating a second corresponding program using an extensible, object-oriented programming language to describe the high-level source code (see, for example, column 8, lines 20-30, which shows using Extensible Markup Language for a meta file, and column 4, lines 22-39, which shows that the meta file describes objects of the high-level language, and see, for example, FIG. 3, which shows an exemplary program written in the extensible, object-oriented language); and

(c) converting the second corresponding program into a form of the high-level programming language (see column 4, lines 22-39, which shows combining or converting the meta file to produce an output file in a form of the high-level programming language, and see, for example, FIG. 5A, which shows an exemplary output file).

With respect to claim 23 (original), Wigger further discloses the limitation wherein the

form is machine-executable (see, for example, column 6, lines 41-47, which shows that the

program is compiled and executed, and is therefore machine-executable).

With respect to claim 24 (original), Wigger further discloses the limitation wherein the

form is high-level programming language (see, for example, column 4, lines 22-39, which shows

producing an output file in the form of a high-level programming language).

With respect to claim 25 (original), Wigger further discloses the limitations wherein

results of said step (a) and said step (b) are placed into one file (see, for example, column 4, lines

22-39, which shows combining the source program and the meta file to produce an output file),

and further comprising the steps of:

(d) copying said second corresponding program from the file (see, for example, column

14, lines 47-51, which shows copying code from the meta file); and

(e) combining said second corresponding program with the form of the high-level source

code (see, for example, column 4, lines 22-39, which shows combining the source program and

the meta file to produce an output file).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

8.   Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wigger, as

applied to claim 17 above, in view of U.S. Pat. No. 6,675,370 to Sundaresan (art of record,

"Sundaresan" herein).

With respect to claim 18 (original), Wigger further discloses the limitation wherein

compiler pragmas are automatically added to the system (see, for example, column 6, lines 41-

47, which shows a preprocessing step prior to compilation, and see, for example, block 450 in

FIG. 4A, which shows compiler directives or pragmas as indicated by the "%" character).

Although Wigger discloses statements used for documentation (see, for example, FIG.

4A, which shows comments as indicated by the "//" characters), Wigger does not expressly

disclose the limitation wherein copyright text and CCDoc directives are automatically added to

the system.

However, Sundaresan discloses automatically generating documentation by adding

Javadoc directives (see, for example, column 3, lines 1-10), which are analogous to CCDoc

directives, using an extensible language (see, for example, column 3, lines 36-43). Note that

Sundaresan further discloses a preprocessor for producing browsable documentation for high-

level languages that do not already have that capability, such as C++ (see, for example, column

5, lines 43-49).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add CCDoc directives to the system of Wigger, as suggested by Sundaresan, for the

purpose of automatically providing source code documentation.

Furthermore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the comments in the output file of Wigger (see, for example, FIG. 5A)

for copyright text, in order to identify the owner of the source code.

9.   Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wigger, as

applied to claim 25 above, in view of U.S. Pat. No. 6,546,549 to Li (art of record, "Li" herein).

With respect to claim 26 (original), Wigger does not expressly disclose the limitation

wherein the file is a header file.

However, Li discloses producing header files (see, for example, files F4, F5 and F6 in

FIGS. 1 and 2, and column 6, lines 8-24, which shows include files or header files), in a source

code transformation system for generating stub methods adaptable to a plurality of execution

environments (see, for example, column 4, lines 18-22). Note that Li further discloses using a

high-level programming language as well as extensible object-oriented programming language

(see, for example, column 5, lines 27-57, which shows using C++ and extended C++).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made for the output file in the system of Wigger to be used as a header file, as taught by Li,

for the purpose of adapting programs to a plurality of execution environments.

10.   Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wigger in view

of Li as applied to claim 26 above, and further in view of *Microsoft Press Computer Dictionary,*

Third Edition (art of record, "Dictionary" herein).

With respect to claim 27 (original), although Li discloses including header files in C++ programs (see, for example, column 6, lines 8-24), the combination of Wigger and Li does not expressly disclose the limitation wherein the header file comprises the following sections: definitions, user preamble, user pre-object, user member, user post-object and user post-amble.

However, header files are well known in the art to comprise definitions of data types and declarations of variables used by a program (see, for example, Dictionary, page 229, "header file"). For example, a header file may define a class (i.e., a definitions section) and a number of functions or methods (i.e., a user member section), and have comments to describe the header file and specify how class objects and functions are to be used (i.e., user preamble, pre-object, post-object and post-amble sections).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the header file in the system of Wigger and Li to comprise definitions, user preamble, user pre-object, user member, user post-object and user post-amble sections, because it is well known in the art that header files may comprise such sections to describe information used by a program.

Conclusion

11.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

12.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael J. Yigdall whose telephone number is (571) 272-3707.

The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MY

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